IN THE CLAIMS

1. (Currently amended) A system comprising: ~~A computer based method for interactively configuring a network device comprising:~~

a network device; and

a computer communicatively coupled to the network device over a network, the computer operable to:

display a document including text extracted from a local copy of a configuration file for the network device, the text representing a plurality of different objects that each control different functionality of the network device;

receive a user input modifying a selected portion of the text that corresponds to one of the objects; and

exchange communications with the network device immediately and prior to receiving a subsequent second user input that modifies a different portion of the text that corresponds to a different one of the objects, the communications for dynamically modifying a remote copy of the configuration file that is stored on the network device without exchanging an entire copy of the configuration file between the computer and the network device.

~~displaying a document to a user of a client computer wherein said document comprises a configuration for said device in a text format and wherein said client computer is coupled via a network to said network device;~~

~~editing said document to make a change in said configuration; and~~

~~sending said change in said configuration to said device.~~

2. (Currently amended) The system of claim 1 wherein the network device is reconfigured dynamically and interactively while the user modifies the text displayed by the computer.

~~The computer based method as recited in Claim 1 further comprising requesting said configuration from said network device wherein said displaying is performed upon receiving said configuration in response to said request.~~

3. (Currently amended) The system of claim 1 further comprising:

the computer to transfer an incomplete command fragment input by the user to the network device without completing the incomplete command fragment; and

the network device to receive the incomplete command fragment and automatically perform command completion on the incomplete command fragment, the network device to analyze the completed command and reconfigure itself according to the completed command.

~~The computer based method as recited in Claim 1 wherein said editing comprises said user changing text comprising said configuration document and wherein said editing is performed upon said client computer.~~

4. (Currently amended) The system of claim 3 further comprising:

the network device to send the completed command to the computer for synchronizing changes to the local copy of the configuration file with changes to the remote copy of the configuration file; and

the computer to receive the completed command and update the displayed document based on the completed command.

~~The computer based method as recited in Claim 1 wherein said editing comprises interacting with said network device.~~

5. (Currently amended) The system of claim 4 wherein the document displays the incomplete command fragment when the network device initiates reconfiguration based on the complete command.

~~The computer based method as recited in Claim 4 wherein said interacting comprises:~~

~~sending a first code component from said client computer to said network device; and~~

~~receiving a second code component from said network device at said client computer in response to said sending said first code component.~~

6. (Currently amended) The system of claim 1 wherein the network device is configured to perform syntax checking on edited lines transferred from the computer responsive to the communication exchange.

~~The computer based method as recited in Claim 5 wherein said interacting comprises initiating an automatic completion of a command entered by said user into said text, wherein said first code component comprises a textual fragment of said command, wherein said second code component comprises said command in its entirety, and wherein said command in its entirety is added to said text.~~

7. (Currently amended) The system of claim 1 wherein the computer is operable to use a Command Line Interface (CLI) parser installed on the network device to process the user request. ~~The computer-based method as recited in Claim 5 wherein said interacting comprises automatically displaying a list of commands that are appropriate to a position in said text, wherein said first code component requests said list, wherein said second code component comprises said list, wherein said list is displayed to said user, and wherein said user may select a command from said list for insertion into said text at said position.~~

8. (Currently amended) The system of claim 7 wherein the computer does not emulate a replication of the Command Line Interface (CLI) parser of the network device. ~~The computer based method as recited in Claim 5 wherein said interacting comprises performing a syntax check, wherein said first code component initiates said syntax check, wherein said second code component comprises detection of an error in said configuration, and wherein said document is updated to display said error.~~

9. (Currently amended) The system of claim 8 wherein the computer leverages the command correction capability of the network device so that changes to a command-set used for command correction on the network device does not require an update to a command-set on the computer ~~The computer based method as recited in Claim I further comprising sending said configuration in its entirety to said network device~~.

10. (Currently amended) The system of claim 1 wherein the computer is further operable to send the selected portion of the text to the network device without sending different unchanged portions of the text ~~The computer based method as recited in Claim 1 wherein said sending said change in said configuration comprises sending said change in said configuration without sending an unchanged component of said configuration to said network device~~.

11. (Currently amended) The system of claim 1 further comprising ~~The computer based method as recited in Claim 10 wherein said sending comprises~~:

the computer to form ~~forming~~ a transport object; ~~wherein said transport object contains code comprising said change; and~~

the computer to generate code indicating the modifications to the selected portion of the text; and

the computer to dispose ~~disposing~~ said transport object containing the code within a transport medium.

12. (Currently amended) The system of ~~The computer based method as recited in~~ Claim 11 wherein said code comprises a command configured to instruct the network device to make corresponding modifications to the remote copy of the configuration file.

13. (Currently amended) The system of ~~The computer based method as recited in~~ Claim 12 wherein said command is rendered in Command Line Interface format.

14. (Currently amended) The system of ~~The computer based method as recited in~~ Claim 11 wherein said transport medium comprises an interface and wherein said interface substantially complies with Common Object Request Broker Architecture.

15. (Currently amended) The system of ~~The computer based method as recited in~~ Claim 14 wherein the computer is configured to form said transport object by ~~said forming a transport object comprises~~ embedding said code within a set of tags and wherein said tags comprise Extensible Markup Language markers.

16. (Currently amended) The system of ~~The computer based method as recited in~~ Claim 11 wherein said transport medium comprises a serial line interface.

17. (Currently amended) The system of ~~The computer based method as recited in~~ Claim 11 wherein said transport medium comprises Telnet.

18. (Currently amended) The system of ~~The computer based method as recited in~~ Claim 11 wherein said transport medium comprises Secure Shell.

19. (Cancelled)

20. (Cancelled)

21. (Cancelled)

22. (Currently amended) A computer based system for interactively configuring a network device, comprising: ~~The computer-based system as recited in Claim 19 wherein said development environment comprises:~~

an application for providing a development environment;

a text editing tool co-functional with said development environment application, for editing a document wherein said document comprises a configuration for said network device;

a user interface co-functional with said development environment application, for displaying said document to said user and allowing said user to make a change to said document;

a code generator co-functional with said user interface, for generating code corresponding to said change;

a communication module co-functional with said code generator, for sending said change to said device;

a highlighting module for selecting a part of said document to implement said change, and for indicating which parts of said document have been modified; and

an undo manager for restoring said configuration to a state prior to implementing said change.

23. (Currently amended) The computer based system as recited in Claim 22 [[19]] wherein said configuration is retrieved from said network device in response to a user request, wherein said change is made to said document interactively with said network device, and wherein said change is made to said document interactively with said network device by a process comprising:

sending a first code component from said system to said network device; and

receiving a second code component from said network device at said system in response to said sending said first code component.

24. (Original) The computer based system as recited in Claim 23 wherein said user request comprises a request selected from the group consisting essentially of:

initiating an automatic completion of a command entered by said user into said document, wherein said first code component comprises a textual fragment of said command, wherein said second code component comprises said command in its entirety, and wherein said command in its entirety is added to said text;

requesting a list of commands that are appropriate to a position in said text, wherein said first code component requests said list, wherein said second code component comprises said list, wherein said list is displayed to said user, and wherein said user may select a command from said list for insertion into said text at said position; and

initiating a syntax check, wherein said first code component comprises said request for said syntax check, wherein said second code component comprises a detection of an error in said document, and wherein said document is updated to display said error.

25. (Currently amended) The computer based system as recited in Claim 22 [[19]] wherein said change in said configuration is sent without sending an unchanged component of said configuration to said network device and wherein said sending said change to said network device comprises:

forming a transport object wherein said transport object contains code comprising said change; and

disposing said transport object within a transport medium.

26. (Original) The computer based system as recited in Claim 25 wherein said transport medium comprises a medium selected from the group consisting essentially of:

an interface and wherein said interface substantially complies with Common Object Request Broker Architecture;

a serial line interface;

Telnet; and

Secure Shell.

27. (Currently amended) A method comprising: ~~A computer usable medium having a computer readable program code therein for causing a computer system to execute a method for configuring a device, said method comprising:~~

displaying a document including text corresponding to a configuration file stored on a remotely located network device, the text representing multiple different objects that each control different operational characteristics of the remotely located network device;

receiving a user input modifying a selected portion of the text that corresponds to a first subset of the objects; and

sending one or more communications over a network to the network device immediately and prior to receiving a subsequent second user input that modifies a different

portion of the text that corresponds to a second different subset of the objects, the communications configured to cause the network device to dynamically modify the configuration file that is stored on the network device.

~~displaying a document to a user of a client computer upon a request by said user to said network device wherein said document comprises a configuration for said device in a text format and wherein said client computer is coupled via a network to said network device;~~

~~editing said document to make a change in said configuration wherein said editing comprises said user changing text comprising said configuration document and wherein said editing is performed upon said client computer and wherein said editing comprises interacting with said network device; and~~

~~sending said change in said configuration to said device.~~

28. (Currently amended) The method of claim 27 wherein the communications include payload data configured to control only a subset of the operational characteristics that corresponds to the first subset of the objects such that the method does not require transferring an entire copy of the configuration file to or from the network device to elicit the dynamic modification of the configuration file. ~~The computer usable medium as recited in Claim 27 wherein said interacting comprises:~~

~~sending a first code component from said client computer to said network device; and~~

~~receiving a second code component from said network device at said client computer in response to said sending said first code component.~~

29. (Currently amended) The method of claim 27 further comprising: ~~The computer usable medium as recited in Claim 28 wherein said interacting comprises an action selected from the group consisting essentially of:~~

sending a first code component to said network device;

receiving a second code component from said network device in response to said sending said first code component;

initiating an automatic completion of a user inputted command ~~entered by said user into said text~~, wherein said first code component comprises a textual fragment of said user inputted command, wherein said second code component comprises said command in its entirety, and wherein said command in its entirety is added to said text; and

after performing command completion responsive to receiving the second code component, updating a display of the textual fragment with the command in its entirety to synchronize the display with the configuration file located on the network device.

~~requesting a list of commands that are appropriate to a position in said text, wherein said first code component requests said list, wherein said second code component comprises said list, wherein said list is displayed to said user, and wherein said user may select a command from said list for insertion into said text at said position; and~~

~~initiating a syntax check, wherein said first code component comprises a request for initiating a syntax check, wherein said second code component comprises detecting an error in said configuration, and wherein said document is updated to display said error.~~

30. (Currently amended) The method of claim 27 further comprising: ~~The computer based medium as recited in Claim 28 wherein said sending comprises sending said change in said configuration without sending an unchanged component of said configuration to said network device and wherein said sending comprises:~~

forming a transport object for sending the communications, wherein said transport object contains code configured to control dynamic modification of the configuration file ~~comprising said change~~; and

disposing said transport object within a transport medium.

31. (Currently amended) The method of claim 30 ~~The computer usable medium as recited in Claim 30~~ wherein said code comprises a command and wherein said command is rendered in Command Line Interface format.

32. (Currently amended) The method of claim 30 ~~The computer usable medium as recited in Claim 30~~ wherein said transport medium comprises a medium selected from the group consisting essentially of:

an interface wherein said interface substantially complies with Common Object Request Broker Architecture;

a serial line interface;

Telnet; and

Secure Shell.

33. (Currently amended) A computer based system ~~for configuring a network device~~, comprising:

means for displaying a document to a local user ~~of a client computer~~ upon receiving ~~said~~ a configuration of a network device, ~~in response to a request from said user~~ wherein said document comprises [[a]] the configuration for said network device in a text format and wherein said ~~client~~ computer is coupled via a network to said network device;

means for ~~editing said document to make a change in said configuration wherein said editing means comprise means for~~ allowing said user to change text comprising said ~~configuration~~ document~~, wherein said editing means comprise an application running on said client computer and wherein said editing means cooperate with means for interacting with said network device~~; and

means for interacting with the remote network device to provide the changed text to the remote network device;

wherein the computer is configured to interact with the remote network device to provide the changed text independently of whether the computer detects that the changed text comprises an incomplete command.

~~means for sending said change in said configuration to said device.~~

34. (Currently amended) The computer based system as recited in Claim 33 wherein said interacting means comprise:

means for sending a first code component ~~from said client computer~~ to said network device, the first code component including at least a portion of the changed text that includes a syntax error; and

means for receiving a second code component from said network device ~~at said client computer~~ in response to said sending said first code component, the second code component including the portion of the changed text with the syntax error corrected.

35. (Cancelled)

36. (Currently amended) The computer based system as recited in Claim 34 further comprising ~~wherein said means for sending send said change in said configuration without sending an unchanged component of said configuration to said network device and wherein said sending means comprise~~:

means for forming a transport object wherein said transport object contains the first code component ~~code comprising said change~~; and

means for disposing said transport object within a transport medium.

37. (Original) The computer based system as recited in Claim 36 wherein said transport medium comprises a medium selected from the group consisting essentially of:

an interface and wherein said interface substantially complies with Common Object Request Broker Architecture;

a serial line interface;

Telnet; and

Secure Shell.

38. (Currently amended) An apparatus having a [[A]] computer based programming tool for interactively configuring a network device installed thereon, the computer based programming tool comprising:

a component for providing a development environment;

a text editing component co-functional with said development environment component, for editing a document wherein said document comprises a configuration for said network device;

a user interface component co-functional with said development environment component, for displaying said document to said user and allowing said user to make a plurality of changes ~~change~~ to said document;

a code generating component co-functional with said user interface component, for generating code corresponding to said change;

a communication component co-functional with said code generator, for sending said changes ~~change~~ to said device, said communication component capable of sending said changes in a piecemeal fashion when requested by the user thereby allowing the user to continuously and interactively adjust operation of the network device while the user makes the changes to said document.

39. (Currently amended) The apparatus of claim 38 wherein the ~~The~~ computer based programming tool installed thereon further comprises ~~as recited in Claim 38 further comprising~~:

an error handling component co-functional with said communication component, for detecting and handling an error in said changes ~~change~~; and

a change tracking module co-functional with said user interface for tracking said changes ~~change~~.

40. (Currently amended) The apparatus of claim 38 wherein the computer based programming tool installed thereon further comprises ~~The computer based programming tool as recited in Claim 38 wherein said development environment comprises~~:

a highlighting component for selecting a part of said document to implement said changes ~~change~~, and for indicating which parts of said document have been modified; and

an undo component for restoring said configuration to a state prior to implementing said changes ~~change~~.

41. (Currently amended) The apparatus of claim 38 wherein the ~~The~~ computer based programming tool installed thereon is further operable to ~~as recited in Claim 38 wherein said configuration is retrieved from said network device in response to a user request, wherein said change is made to said document interactively with said network device, and wherein said change is made to said document interactively with said network device by a process comprising~~:

~~sending~~ send a first code component from said system to said network device; and

~~receiving~~ receive a second code component from said network device at said system in response to said sending said first code component.

42. (Currently amended) The apparatus of claim 41 wherein the ~~The~~ computer based programming tool installed thereon is further operable to select an action ~~as recited in Claim 41 wherein said user request comprises a request for an action selected~~ from the group consisting essentially of:

requesting initiation of an automatic completion of a command entered by said user into said document, wherein said first code component comprises a textual fragment of said command, wherein said second code component comprises said command in its entirety, and wherein said command in its entirety is added to said text;

requesting a list of commands that are appropriate to a position in said text, wherein said first code component requests said list, wherein said second code component comprises

said list, wherein said list is displayed to said user, and wherein said user may select a command from said list for insertion into said text at said position; and

requesting initiation of a syntax check, wherein said first code component comprises said request for said syntax check, wherein said second code component comprises a detection of an error in said document, and wherein said document is updated to display said error.

43. (Currently amended) The apparatus of claim 38 wherein the ~~The~~ computer based programming tool installed thereon is further operable to ~~as recited in Claim 38 wherein said change in said configuration is sent without sending an unchanged component of said configuration to said network device and wherein said sending said change to said network device comprises~~:

~~forming~~ form a transport object wherein said transport object contains code comprising said changes ~~change~~; and

~~disposing~~ dispose said transport object within a transport medium.

44. (Currently amended) The apparatus of claim 43 wherein the ~~The computer based programming tool as recited in Claim 43 wherein said~~ transport medium comprises a medium selected from the group consisting essentially of:

a serial line interface;

Telnet; and

Secure Shell.

45. (Currently amended) The apparatus of claim 43 wherein the ~~The computer based system as recited in Claim 43 wherein~~ transport medium comprises an interface and wherein said interface substantially complies with Common Object Request Broker Architecture.

46. (Currently amended) The apparatus of claim 45 wherein the computer based programming tool is further operable to embed ~~The computer based system as recited in Claim 45 wherein said forming a transport object comprises embedding~~ said code within a set of tags and wherein said tags comprise Extensible Markup Language markers.